
South West Healthcare

Environmental Sustainability Report 2018-19



Contents

About this report	p.2
Glossary	p.2
Energy and Water	p.3
Waste and Recycling	p.4
2017-19 Environmental Summary	p.5

Front Cover Images

The front cover provides some images of sustainability-related activity within South West Healthcare during 2018-19 (clockwise from top).

1. The South West Healthcare Environmental Sustainability Committee touring the Warrnambool solar installation just before Christmas (from l-r Rochelle Hine, Ray Bennett, Shane Grundy, Les Harrison, Anne Wallis, Ben Pohlner, Jamie Sabo, Elvira Hewson and Brian McNamara). Erin Weston, Craig McLeod and Jodie Crossman are current committee members not in the photo.
2. Paper medicine cups have replaced 95% of plastic medicine cups, with significantly better environmental and financial outcomes for the organization. This initiative was led by SWH Clinical Products Advisor Steph Hughes, who is pictured centre left, with Acute Unit staff Christine Pritchard (from left), Jen Howe, Narelle Grummett, Olivia Beavis, Kerrie Griffiths and Gina Canfield.
3. Pictured is Les Harrison with Merindah Lodge residents Alice Perkins and Grace Rounds inspecting the recently completed 90kw solar array at Camperdown Hospital (Image courtesy of WD News and photographer Helen Gaut).

About this report

South West Healthcare (SWH) is the largest sub-regional health service in Victoria; providing acute, mental health, rehabilitation, and aged care together with an extensive range of primary and community health services across the south west catchment. Public clinical mental health services for community members of all ages operate out of offices in Warrnambool, Camperdown, Portland and Hamilton. Community Health Centres at Warrnambool, Camperdown, Lismore and Macarthur and an adult day centre in Camperdown provide services and programs to support the locals in their community, enabling them to maintain their health and prevent illness and chronic disease. With a total of 282 beds (216 acute, 36 aged care and 30 mental health), located across two public hospitals Warrnambool Base Hospital and Camperdown Hospital and Aged Care Facility, and the Prevention and Recovery Centre Ngootyoong, the organisation is a major specialist referral centre for the Barwon South West sub-region. To support these patient services, South West Healthcare has commercial kitchens at two sites, two cafes at Warrnambool, a commercial laundry, supply and maintenance departments, tenancies and a range of smaller dwellings (i.e. Rotary house and medical student accommodation).

This document contains Southwest Healthcare’s (SWH) environmental performance data as it relates to energy and water usage, waste production and generation of Greenhouse Gas (GHG) Emissions. This report details performance against a standard, industry-wide set of metrics across the reporting period covering the financial year 2018-19. Energy and Water consumption totals for SWH include all of these sites, while waste production totals relate to the SWH Warrnambool and Camperdown

Hospitals. Energy and Water performance data is compared to data collected since 2014-15, the designated baseline year for Regional Health Services public environmental reporting. Greenhouse Gas Emissions are calculated by the Victorian Health and Human Services Building Authority (VHHSBA) Environmental Data Management System (EDMS). Data provided within this report is normalised using indicators relevant to the healthcare sector, occupied bed days (OBD) and area (m2). These normalised figures provide the most accurate evaluation of environmental performance in the context of increased service provision. Data assurance for this report has been achieved internally according to the *Department of Health’s Environmental Reporting Guidelines 2015-16*.

These figures provide an insight into progress towards targets outlined in the *South West Healthcare Environmental Management Plan 2017-2019*. A summary of activity in the entire period is included at the end of this report. In 2019-20, South West Healthcare will develop a new range of targets for an *Environmental Management Plan 2020-2024*. These new targets will be extended to reflect priority areas of the *VHHSBA Environmental Sustainability Strategy 2019-20—2022-23*. This Strategy sets out the Department of Health and Human Services’ (DHHS) commitment to further improve the environmental performance of the health system and to adapt the health system so it is resilient in the face of climate change.

Glossary

Throughout this report the following key terms are used:

Area (m2): Total building floor area (excluding car parks) – metres squared (m2) of South West Healthcare.

Occupied bed days (OBD): Inpatient bed days as reported through the Victorian Admitted Episodes Dataset (VAED) and the number of residential aged care bed days for the reporting period reported to the Department of Health’s Aged Care Branch.

	Area (m2) 2014-15 to 2016-17	2014-15 OBD	2015-16 OBD	2016-17 OBD	Area (m2) from 2017-18	2017-18 OBD	2018-19 OBD
Warrnambool Base Hospital	38,878	53001	53470	60,124	38,878	60,543	62,764
Camperdown Hospital & Aged Care Facility	5,255	16,279	14,140	15,186	5,255	15,653	15,695
South West Healthcare Total	58,285	69,280	67,610	75,310	59,635	76,196	78,459

Scope 1 Emissions: Point source emissions including all emissions produced onsite that are material (>5%) to the operations and services of South West Healthcare. These include fleet transport fuel, gas and diesel consumption.

Scope 2 Emissions: Indirect emissions from the generation of peak and off peak electricity purchased and consumed by South West Healthcare are produced by the burning of fuel (coal) at the power station.



Energy

Overview: An 7% decrease in energy usage was achieved in 2018-19 in comparison to 2017-18. This decrease reflected the impact of energy efficiency initiatives, renewable energy projects and maintenance programs. Importantly, continual declines in energy usage are being achieved in the context of continual increases in service delivery, as highlighted in the normalised emissions figures. In line with targets set in the *SWH Environmental Management Plan 2017-2019*, continual decreases in consumption were recorded across major energy sources (electricity 2%, natural gas 14%), but with slight increases in both LPG gas and fleet fuel usage, as summarised in Table 1. Although LPG gas consumption has a relatively low contribution to overall energy use, our smaller campuses are reliant on this energy source for heating and hot water. The impact of this energy usage is indicated in Table 2 which provides a summary of Greenhouse Gas (GHG) Emissions with normalised figures. Involvement in the Barwon South West Regional Solar program was a key project for 2018-19 (see story).

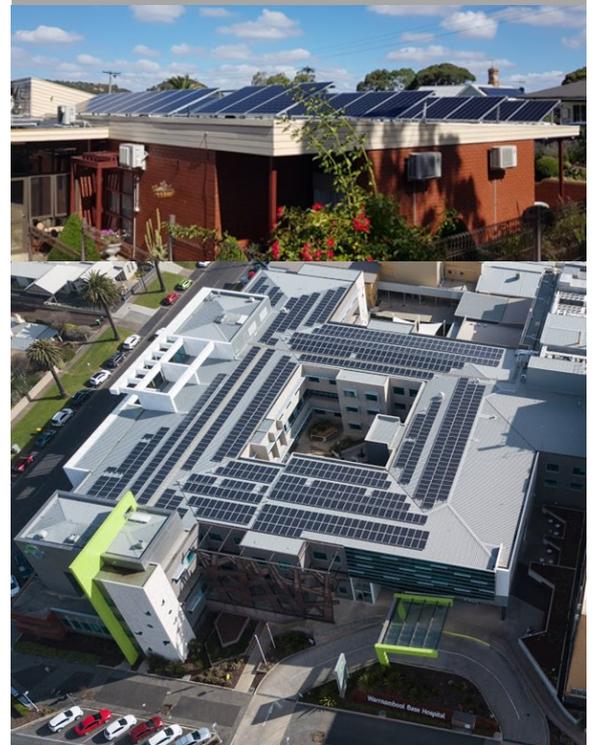
South West Healthcare has been working as part of a larger regional solar collaboration for the past 12 months. A total of 2460kW of panels have been installed with a combination of no-interest loans and grants at 20 campuses of 12 health services in the Barwon South West Region, including a 250kW system at Warrnambool Base Hospital and 90kW system at Camperdown Hospital. Installations have been completed, with the Camperdown solar array operational at the end of March (pictured below top), and the Warrnambool solar array operational by the end of September 2019 (pictured below bottom). These renewable energy projects are set to reduce annual power consumption by 5% at Warrnambool and nearly 25% at Camperdown with corresponding reductions in emissions.

	2014-15	2015-16	2016-17	2017-18	2018-19
Total Electricity MWh	6,916	7,636	7,806	7,768	7,631
Total Electricity (GJ)	24,897	27,489	28,103	27,697	27,473
Natural Gas (GJ)	49,398	46,327	45,644	44,114	37,389
Liquid Petroleum Gas (GJ)	-	-	210	173	198
Fleet Transport (GJ)	6,853	7,288	6,572	6,503	8,060
Total Energy Usage (GJ)	81,149	81,110	80,530	78,561*	73,120

Table 1: Energy Usage at South West Healthcare
*2017-18 figures adjusted to display contribution by PARC facility.

	2014-15	2015-16	2016-17	2017-18	2018-19
Scope 1 – direct (tCo2e)	2,725	2,613	2584	2504	2149
Scope 2 – indirect (tCo2e)	8,161	8,628	8509	8309	8166
Total Emissions (tCo2e)	10,886	11,241	11,093	10,813*	10,315
Emissions (kgCO2e)/OBD	157.12	166.27	147.30	141.91	131.47
Emissions (kgCO2e)/m2	241.45	192.87	190.32	181.3*	172.96

Table 2: Greenhouse Gas (GHG) Emissions for South West Healthcare
*2017-18 figures adjusted to display contribution by PARC facility.



Water

Overview: Total water consumption across South West Healthcare decreased in 2018-19 and this is summarised in Table 3. Usage followed a similar seasonal pattern as 2017-18, with slightly lower figures achieved most months of the year. This reduction is reflective of upgrades of shower heads, and increased capture of rainwater/re-use water from the Reverse Osmosis and Steriliser Units undertaken in previous years. In the context of increased service delivery, usage per patient across the organisation demonstrated significant reductions compared to previous years, within a longer term pattern of reduced usage. Changing legislation around legionella testing in water pipes will challenge these efficiencies in the next reporting period, with the commencement of a Friday Flushing program established in July 2019 for all low-use water taps.

	2014-15	2015-16	2016-17	2017-18	2018-19
Potable water usage (kL)	59,916	63,917	57,692	60,508	56,020
Rainwater/re-use water**	12,000	12,000	12,000	12,000	12,000
Total Water Usage	71,916	75,917	69,692	72,508	68,020
Water usage (kL/OBD)	1.04	1.05	0.93	0.95	0.87
Water usage (kL/m2)	1.23	1.30	1.20	1.22*	1.14
% Rainwater / Reuse rate	16.7%	15.8%	17.2%	16.6%	17.64

*2017-18 figures adjusted to display contribution by PARC facility. **estimated volume

Table 3: Water Usage for South West Healthcare



Waste

Overview: The reporting of waste data across health services became mandatory in 2017-18, and 2018-19 provided the first opportunity to compare waste totals by stream for activity at Warrnambool and Camperdown campuses. Waste is recorded by contractors in either weight or volume, and this has created difficulties in evaluating targets for reducing waste to landfill. The *Victorian public health services waste reporting tool: version 2.01* has been integrated into the EDMS since 2017-18. This tool has attempted to overcome these anomalies of reporting, by providing standardised estimates of weights for key bin types and waste streams. These estimates are shown in Table 4. Where an actual weight was known, this was used in preference to the estimated weight from the tool.

In line with targets in the *SWH Environmental Management Plan 2017-19*, continual reductions in waste to landfill were achieved, and rates of recycling were increased for 7 key recycling streams. A 9% decrease in waste to landfill recorded in 2018-19 compared to 2017-18. Clinical waste totals were adjusted from 2017-18 with actual weights provided to the EDMS, and increased overall in 2018-19. Overall rates of waste generated per OBD declined slightly from 7kg total waste/recycling to 6.65kg total waste/recycling in 2018-19. In this current reporting period, increases in battery, cardboard, FOGO, metal, PVC, sterilization wraps and toner/printer cartridge recycling streams were recorded. The volatility in National Recycling Markets impacted primarily on the soft plastics collection, which has been diverted to landfill. This volatility also created issues in confidence of staff toward recycling programs. Education regarding recycling pathways and a focus on reducing waste through resource procurement initiatives have been implemented in response to this volatility. The re-usable sharps caddy (see story below) highlights the impact of resource procurement initiatives on further reducing waste to landfill.

Waste by type (kg)		
	2017-18	2018-19
General (inc. sanitary) ***	325,228	295,298
General waste (kg/ OBD)	4.27	3.76
Clinical waste incinerated	4397	4218
Clinical waste sharps	4961	4785
Clinical waste treated	61,351	70,643
Total Clinical Waste	70,710	79,647
Clinical Waste (kg / OBD)	0.93	1.01
Recycling—batteries	329***	334.8***
Recycling—cardboard	58,410	66,797
Recycling—comingled	54,789	45,128
Recycling—e-waste	1565***	771***
Recycling—metals	226	2520
Recycling—garden organics	919	682
Recycling—FOGO	n/a	6988
Recycling—Little Blue Towels	n/a	224
Recycling—PVC (IV Bags, Oxygen masks and tubing)	278***	357***
Recycling—packaging plastics and films	3,843	n/a
Recycling—paper (confidential and other)	16,114	13,659
Recycling—sterilisation wraps	515***	10,158
Recycling—toner and print cartridges	116	139.62
Total Recycling	137,104	147,534
Recycling waste (kg/OBD)	1.80	1.88
Percentage of recycling to landfill/clinical**	35%	39%

Table 4: Overview of key waste and recycling streams.

*** the general waste at Warrnambool campus is a known weight, and this figure used in preference to the estimate of the waste reporting tool. This figure is significantly less than that generated by the Waste Reporting Tool. This has the biggest impact when considering the percentage of recycling to landfill and clinical waste, which is probably closer to 20%. When available, known weights are used in preference to estimates generated using the Waste Working Tool for any recycling stream .

A trial of PD medical sharps caddies commenced in the Ground Floor Medical Unit late last year. An initiative of Larissa Barclay (acting NUM, Medical Ward), the caddy includes an injection tray and compartments to hold a sharps container and a variety of waterless hand hygiene bottles. Larissa estimates that these 6 sharps caddies will replace 20,000 single-use kidney dishes annually, significantly reducing waste to landfill and costs associated with the manufacture, transport and disposal of the kidney dishes. Other benefits include reduced handling of larger clinical bins in and out of patient areas, and improved safety around syringe handling and disposal.



2017-2019 At a glance

Significant environmental benefits of key projects and strategies delivered via our 2017-19 Environmental Management Plan are being realised. Our energy and water projects are achieving efficiencies in usage, both lowering emissions but also operational costs. This summary infographic highlights that the process of embedding sustainability into all areas of South West Healthcare is a journey and that a significant start has been made.

2020 - 2023 SWH Environmental Management Plan



343 kW solar panels installed across Rotary House, Camperdown and Warrnambool Hospitals

An additional 4,000kL water captured from Sterilisers and RO plant annually for re-use with rainwater for the toilet flushing system at Warrnambool.



14 Recycling Streams, including new collections of alkaline batteries, KIMGUARD, Little Blue Towels and Food Organics and Green Organics (FOGO).



Environmental Sustainability Committee and email network of 75 SWH Green Ambassadors. Member of the Global Green and Healthy Hospitals Network.

For more information or to provide feedback about Sustainability Programs at South West Healthcare contact the Environmental Sustainability Officer.

P. 035563-4068 E. ehewson@swh.net.au



4900 LED lights installed



Water saving shower heads installed at Warrnambool and Camperdown Hospitals resulting in savings of over 10,000L / day

2017-19 SWH Environmental Management Plan



8 Hybrid Camrys in District Nursing Fleet



KEEPCup campaign, reducing 13,000 disposable coffee cups in first year



Ride to work day



Establishment and maintenance of donor-funded Rehab / GEM therapy garden